

New Jersey Transit: Rear Back-Up Camera
Replacement



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Property and Top Bus Number: New Jersey Transit



Issue: Back-Up Camera Failing – Connector Terminals Corroding

Reason/ cause: Existing Back-Up Camera Does Not Hold Up to Vibration – Wire Connectors Not Weatherproof

Solution: Replace Existing Back-Up Camera with More Robust Camera – Replace Connectors with Weatherproof Connectors .

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Number of affected buses: 1169

Estimate repair hours/bus: 2 Hours

Engineering Documentation: ECN#: N13-32863

Necessary parts:

Camera – Nabi PN: 192-1635-001 Qty: 1

Adapter Assembly – Nabi PN: 531-1635-010 Qty:1

Connector, Deutsch – Nabi PN: 500-1682-137 Qty:1

Terminal, Deutsch, Male– Nabi PN: 5032702 Qty: 2

Connector Lock, Deutsch – Nabi PN: 500-1682-138: Qty:1

Wire Ties – Qty: As Required

Necessary tools:

Basic hand tools

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SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.

1. Park the bus and apply the parking brake.
2. Shut off the batteries using the battery disconnect switch.
3. Locate the rear cover for the back up camera (see below) and remove the camera cover.



4. Remove the small screw that fastens the camera to the mounting bracket (see below).



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5. Open the upper rear engine door and locate the camera harness (see below).



6. Disconnect the camera harness from the bus side connector and discard the removed camera & harness.
7. Remove the existing bus side connector (Molex, not Coax) & install terminals (500-1682-137), connector (500-1682-137) & lock (500-1682-138).
8. Close the upper rear engine door.
9. Remove the backing plate for the camera and enlarge hole in rear upper engine door where the removed camera harness ran through to 13/16" (see below).



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10. Reinstall backing plate (replace any failed rivet nuts as needed).
11. Install new camera (192-1635-001) to existing mounting bracket (leave loose) & route new camera cable through the previously enlarged hole.
12. Install rubber grommet (provided with camera) into the hole on the backing plate (see below).

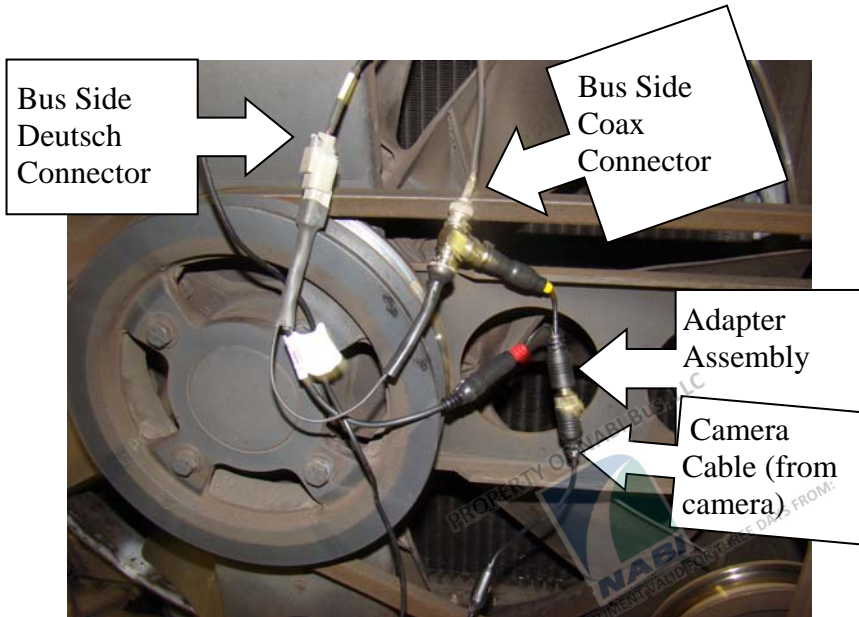


13. Open the upper rear engine door.

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14. Install adapter assembly (531-1635-010) to the previously installed camera cable in step 11, the existing coax bus side cable & to the connector installed in step 7 (see below).



15. Secure the new adapter assembly and camera cable with wire ties as shown (see below).



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16. Close the upper rear engine door.
17. Turn on the batteries using the battery disconnect switch.
18. Place the vehicle in reverse while applying the brakes and check the camera angle.
Adjust the new camera so that its at the correct angle (see below).



19. Once the angle is correct, tighten the mounting screw for the camera that was left loose in step 11.
20. After tightening, verify the angle of the camera did not change using instructions from step 18.
21. Reinstall the existing camera cover removed in step 3.
22. Remove any debris caused by performing this retrofit.